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Chang et al.

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[54] **METHOD OF MAKING A MULTILAYER ELECTRONIC COMPONENT WITH INTER-LAYER CONDUCTOR CONNECTION UTILIZING A CONDUCTIVE VIA FORMING INK**

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[51] **Int. Cl.⁶** **B05D 3/04; B05D 5/12**

[52] **U.S. Cl.** **427/33; 427/97; 156/628.1; 216/17; 216/18; 216/39**

[58] **Field of Search** **427/79, 80, 97, 427/333, 407.1, 419.2; 156/628.1; 216/17, 18, 39, 83**

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[57] **ABSTRACT**

A multilayered electronic component created by a wet process, wherein a ceramic base is imprinted with an electrode and an interlayer via is formed on top of it by introducing a via pattern printed in ink that is incompatible with a layer of wet ceramic slurry coating placed on top of the electrode and the via pattern. The incompatibility leads to a physical-chemical reaction that removes ceramic material away from the top of the via pattern by diffusing ceramic materials contained in a colloidal suspension forming a via-through hole. After the wet ceramic slurry is dried, it surrounds the via-through hole and the imprinted via pattern. Then a new electrode layer is imprinted on top of the dried ceramic coating. The new electrode layer completes an electrically conductive path formed from the bottom-most electrode layer, to the via pattern, and then terminating at the new electrode layer on top.

14 Claims, 1 Drawing Sheet

